

## **Department of Chemistry and Biochemistry**

**Colloquitum Speaker** 

## **Professor Lisa Jones**

Indiana University – Purdue University Indianapolis (IUPUI)



## "Protein Footprinting Coupled with Mass Spectrometry for Protein Structural Analysis"

**Abstract:** Protein footprinting coupled with mass spectrometry has emerged in recent years as a valuable tool to study protein structure. Several footprinting techniques, such as hydrogen deuterium exchange and oxidative labeling, have been successfully used to identify protein-protein and protein-ligand interactions in varying protein systems. To date, these footprinting methods have been performed on relatively pure proteins *in vitro*. The development of an *in vivo* footprinting method would provide a powerful platform to study proteins in their native cellular environment. We have developed an *in vivo* oxidative labeling method, based on the footprinting method fast photochemical oxidation of proteins (FPOP), to analyze proteins in their native environment. The method uses hydroxyl radicals to probe the solvent accessibility of proteins within the cell.

## Wednesday, September 24<sup>th</sup>, 2014 12:00 pm (noon) WO 1205

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